

K6YQT

PAARA NEWSLETTER
VOLUME 53 NUMBER 7, July 2004

W6OTX



PAARAgraphs

Celebrating 67 years as an *active* ham radio club—*Since 1937*
Newsletter for the Palo Alto Amateur Radio Association, Inc.



CALENDAR

July.....9	PAARA Meeting, 7:30 Menlo Park Recreation Center 700 Alma Street, Menlo Park
July.....14	PAARA Board Meeting, 7:30 Red Cross Bld., 400 Mitchell Ln., Palo Alto
Aug.....6	PAARA Meeting, 7:30
Aug.....11	PAARA Board Meeting, 7:30
Sept.....3	PAARA Meeting, 7:30
Sept.....8	PAARA Board Meeting, 7:30

PROGRAM

July 9, 2004 7:30 P.

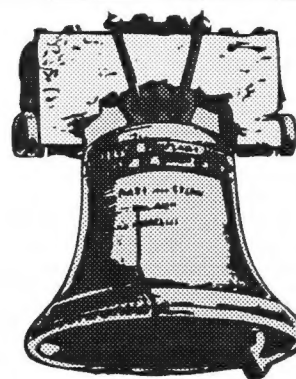
Speaker:
Pink Foster, W6PST

Program:

“NTS 101 / Creating & Handling
Messages”

Join us for pre-meeting eyeball
at Su Hong Restaurant , 1039 El Camino Real, Menlo Park
Food will be served at 6:00 sharp, so guests will be on time for the PAARA
meeting. Those arriving late will be responsible for their own order and bill.

—PAARA Radio NET every Monday evening at 8:30 P.M., local time—
on the 145.230 -600 MHz repeater, PL tone off



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PAARA Member & Speaker:

Pink Foster, W6PST

Program:

“NTS 101/Creating & Handling Messages”

The American Radio Relay League (ARRL) began in
1915 with the National Traffic System (NTS), a method of
passing radio messages still used today.

Attendees will learn the basics of NTS and have an op-
portunity to create messages and pick-up incoming traffic
to deliver locally. Our presenter is fellow PAARA member,
Pink Foster, W6PST, the ARRL Santa Clara Valley Section
Traffic Manager, an Assistant Emergency Coordinator
(AEC) for Mountain View ARES, and net control on the
N6NFI 9AM Talknet.

~Jim, K6AK

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Miscellaneous

ELECTRONIC FLEA MARKET

Sponsorship by A.S.V.A.R.O.

[Association of Silicon Valley Amateur Radio Organizations]

Second Saturday of month, March-October, 6 AM-2PM

Howard M. Krawetz, N6HM 650-856-9761

Hosts:

July 10 Southern Peninsula Emergency Communications System.

Aug. 14 Foothills Amateur Radio Society.

Sep. 11 Silicon Valley Emergency Communications System.

Oct. 9 West Valley Amateur Radio Association.

PAARA Palo Alto Amateur Radio Association

meets 1st Friday 7:30 each month, Net 145.230 each Monday 8:30,
 contact: Andreas Junge N6NU.....(650) 233 0843

FARS Foothills Amateur Radio Society

meets 4th Friday 7:30 each month,
 contact: <http://www.fars.k6ya.org>.

NCDXC Northern California DX Club

meets 2nd Friday 7:30 each month,
 repeater for member info 147.360, Thur 8:00PM,
 contact: Mike Gavin W6WZ, (650) 851 8699.

NorCalQRP Northern California QRP Club

meets 1st Sunday each month,
 contact: Jim Cates 3241 Eastwood Rd., Sacramento, CA 95821.

SPECS Southern Peninsula Emergency Communication System

meets each Monday 8:00PM on Net 145.27, 440.80 MHz, www.specsnet.org
 contact: Tom Cascone, KF6LWZ, 650-688-0441 specs@svpal.org

SCARES South County Amateur Radio Emergency Service

meets 3rd Thursday 7:30 each month, San Carlos City Hall.
 Net is on 146.445 [PL 114.8] & 444.50 (PL-100) 7:30 Monday evenings.
 contact:

SCCARA Santa Clara County Amateur Radio Association

Operates W6UU & W6U/R, repeater 146.985-pl
 Nets: 2m, 7:30 Mon; 70cm, 442.425+ (pl 107.2) Thur.
 Web site www.qsl.net/sccara
 meets 2nd Mon each month @ 7:30 PM.
 contact: Clark Murphy KE6KXO 408-262-9334
 ARRL/VEC license testing contact 408-507-4698

SVECS Silicon Valley Emergency Communications

Operates AA6BT repeater (146.115 MHz+)
 contact: Lou Stierer WA6QYS 408 241 7999

WVARA West Valley Amateur Radio Association

operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2
 WVARA now has a 6M repeater, linked to 440 and 1.2GHz
 meets 3rd Wed every month.
 contact: Bill Ashby N6FFC, 408-267-3118 or
 N6FFC@Juno.com or N6FFC@ARRL.NET

Perham Foundation (discontinued)

Disaster Services,

PALO ALTO CHAPTER, American Red Cross, www.paarc.org

400 Mitchell Lane
 Meets 3rd Wed. each month 7:30PM,
 HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite.
 contact: Mac Millian 650-688-0423, MACM@paarc.org

SAN JOSE CHAPTER, American Red Cross

contact: Scott Hensley KB6UOQ, (408) 967 7924, FSHENSLEY@NOVELL.COM

VE Exams, 3rd Saturday each month, 10:30AM, 145.23-PL=100Hz

Redwood City Main Library, Community Conference Room
 1044 Middlefield Road, Redwood City, CA
 contact: Al WB6IMX@att.net.

Swap meet, LosPositas College, Livermore, 1st Sunday each month.

Contact: Cliff Kibbe (209) 835 6715 or Eliot Ross (925) 606 7710

(please send changes to PAARAgaphs editor: k6uro@arrl.net)

LIFE MEMBERSHIP

Awarded by Action of the PAARA Board

Ron Panton, W6VG & Leslie Vickery, W6AKR

Joe Gomes, KB6HDC

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..see "Calendar" for Board meeting times, visitors welcome-

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additional pictures by

Dick Kors, KM6EP, John Larribeau KR6MR, Wally Porter K6URO

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Submit material for PAARAgaphs by the 15th

Use WORD, MS Publisher, rich text, or ascii

(New Times Roman is the common font)

send **pictures as attachments** .jpg

PAARA Website: www.paara.org

PAARA Forum: <http://www.paara.org/forum/>

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NEW MEMBER PROFILE. K6WEB.

Peter Sheerin, K6WEB, is actually not considered a really new member of PAARA as he earned his technician license way back in February of 2003. However, we have discovered that some members do not know Peter or the work he has been doing for our radio club.

Peter Sheerin, K6WEB, is a resident of Foster City where he lives the good life as a 35 year old bachelor and operates his VHF/UHF station with the help of a twin lead J pole antenna disguised as a flag pole. Some of his radio shack equipment at this time includes a Radio Shack HTX-200 two meter rig; a Kenwood THF-6A tri bander; an Icom 208H and a Yaesu FT-817.

Peter is currently the editor of 'Game Developer Magazine', which is a rather special publication for subscribers who are 3-D artists; audio or video developers; or anyone who is into designing video games or ancillary software for that huge industry. Peter commutes to downtown San Francisco every-day, usually by public transportation, to fulfill his duties reviewing new products, writing articles and editing the magazine.

Prior to being asked to take over this relatively new position, Peter was the technical editor of another well known magazine known as 'Cadence', which was a computer aided design publication for architects; engineers and others involved in the computer game manufacturing industry. He served in that position for eleven years.

Peter graduated from San Mateo High School in 1988, which makes him a local boy, who made good. His primary interests have been computers and internet technology. Peter enjoys bicycle riding; technical reading/writing and designing and building web sites. In fact, you can view some of his web site work by looking at: www.petesguide.com or www.pushback.com or www.paara.org

When Peter is not running around as a bicycle mobile or as a portable station on the public transportation, he is busy assisting PAARA with the up keep of the web site or preparing the trailer and equipment for Field Day. Thank you, Peter. Please make a point of meeting Peter, K6WEB at the meetings or field day and encourage him to continue working on the code for his next license up grade.

~Terry Finn. AF6TF.

Due to Field Day commitment there is no
 "PAARA HONORS" published this month

Check out www.amqrp.org

Ever heard of Bob Wilson? He has the distinction of scoring major-league baseball's one millionth run. It happened on May 4, 1975, while he was playing for the Houston Astros. His prize: one million Tootsie Rolls.

~Uncle John

PAARA MEMBERS

UP-GRADE THEIR LICENSE STATUS.

At the VE amateur radio license testing site in Redwood City, on Saturday, June 19/04, there were twelve applicants for various licenses. The examiners were kept rather busy with the appropriate FCC forms and procedures that are required for this type of multi part testing involving the large number of applicants. However, due to their skills and experience the VE's (who are all PAARA members) were able to successfully handle the large group and administer the tests properly.

The VE's present were: **Dan Curry, K6DLC**; **Al Montoya, WB6IMX**, **Stan Towle, WA6ZGI** and **Terry Finn, AF6TF**. Thank you gentlemen !

PAARA members who were there to be tested all passed and up-graded their licenses. They are to be congratulated for their efforts. So please, let them know that you are happy for them and proud that they are members of your organization, PAARA.

Joann Haines, KG6TJJ, passed the code test & the general class test.

Dave Rogers, K5DKR, passed the general class test.

Dave Cooper, KE6PFF, passed the general test. (credit only. no code)

Merritt Yee, KG6TNO, passed the general test. (credit only. no code)

Kyle Yee, (TBA), passed the technician test.

~Terry Finn. AF6TF.

W6JVG WINS THE PRIZE DRAWING AGAIN !!!

PAARA member **Jean-Claude Guillon, W6JVG**, of Morgan Hill has again won the grand prize at the monthly meeting raffle. Way to go, JC !! As noted elsewhere in this fine PAARA publication, JC won the Elecraft KX1 Transceiver with a plug-in keyer paddle. This kit is the ultra-portable 3 band HF QRP rig, with a 35 milliamp receiver that only weighs 9 oz. It should be noted that almost all of the technical support hams who work at the ARRL actually own and operate this particular transceiver.

Some participants in the monthly PAARA prize raffle have already asked JC if he will purchase their tickets in the future as he seems to have incredible luck since he has won the grand prize and others so frequently.

It should be noted that JC is a really generous and quiet sort of a guy. Did you know for example, that he donated the brand new Yaesu FT-2800, 65 watt mobile two meter rig as a base station radio, that he won at an earlier PAARA meeting ? Yes, he did. It was given to PAARA member **Stan Towle, WA6ZGI**, who will be installing it at the radio shack of the Dominican Sisters of Mission San Jose. Thank you so much, JC.

PAARA really appreciates your generosity and we know that the Sisters will always be thinking of you for helping them with their radio station project.

~Terry Finn. AF6TF.

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AT&T Corp.
FCC Form 442
Printed Form, Item 4
Online Form, Item ?

Exhibit 1, Item 4

Frequency Class Emission Authorized Power
(MHz) Designator (Watts)

1.705-80 MHz FX Unintentional Radiator Note 1

2400-2472 FX 20M0D2D/16M6W7D Note 2 .

5150-5250 FX 16M6W7D .05, Note 2

5250-5350 FX 20M0D2D .25

5725-5825 FX 16M6W7D 1.0

Notes:

1. Power will be limited to assure compliance with Section 15.207.
2. Authorized maximum power will be set to assure compliance with Section 15.249.

AT&T Corp.
FCC Form 442
Printed Form, Item 5
Online Form, Item ?

Exhibit 2, Item 5

BPL and IEEE 802.11 trial systems are fixed and will be located as follows:

State County City Address- Bounded Approximately by Streets

FL Dade Miami SW 95th Terrace, SW 104th Street,

SW 125th Avenue, FL Highway 821

Geographic coordinates of trial area corners:

Northwest 25:40:46N Lat. 80:23:54W Lon. NAD83

Northeast 25:40:46N Lat. 80:23:15W Lon.

Southeast 25:40:16N Lat. 80:23:15W Lon.

Southwest 25:40:16N Lat 80:23:54W Lon.

State County City Address- Bounded Approximately by Streets

CA San Mateo Menlo Park Willow Road, Gilbert Street, Nova Lane

Middlefield Road, Concorde Drive

Geographic coordinates of trial area corners:

Northwest 37:27:36N Lat. 122:09:52W Lon. NAD83

Northeast 37:27:36N Lat. 122:09:24W Lon.

Southeast 37:27:12N Lat. 122:09:24W Lon.

Southwest 37:27:12N Lat. 122:09:52W Lon.

Operation is also anticipated for testing purposes at AT&T Labs locations as follows:

State County City Address Within 1 km of Coordinates

NJ Morris Florham Park 180 Park Avenue 40:46:37N Lat., 74:24:43W Lon.

NJ Monmouth Middletown 200 S. Laurel Ave. 40:23:51N Lat., 74:08:10W Lon.

AT&T Corp.

FCC Form 442

Printed Form, Item 10

Online Form, Item 7

Exhibit 3, Item 10a/7a

The service offering being considered for future deployment is a 3-10 Mbps symmetric wireless data mobility service to the home with the added option that customers can use their data equipment anywhere within the system coverage area. The service is envisioned to be highly competitive. Miami, FL: AT&T proposes to install a Broadband-over-Power Line (BPL) system using the medium voltage (MV) and low voltage (LV) facilities of Florida Power & Light in a residential area of Miami Florida, passing approximately 350 residences. Amperion BPL equipment will be deployed on the MV lines and Main.Net BPL equipment will be deployed on the MV and LV lines; each vendor's system will serve approximately half of the test area. The test area will be mapped into 40 cells consistent with the local powerline architecture. Menlo Park, CA: AT&T proposes to install a BPL system using the MV and LV facilities of Pacific Gas & Electric (PG&E) in a residential area of Menlo Park, California, passing approximately 300 residences. Main.Net BPL equipment will be deployed on MV and LV lines. The test area will be mapped into 30 cells consistent with the local powerline architecture. Both the Miami and Menlo Park systems will interconnect to the telephone network via fiber optic cable or other broadband transmission means. Multiple feed points will provide access to the approximately 40 cells (Miami) and 30 cells (Menlo Park) into which the test areas are mapped. Low voltage BPL distribution technology will be used to provide customer access to the system, primarily in areas served by underground electric facilities in the Main.Net test areas; IEEE 802.11 equipment will be deployed at cell nodes to accommodate customer access, primarily in test areas served by overhead electric facilities. In some cases, both LV-BPL and 802.11 access technologies will be available at the same customer location. Both Amperion and Main.Net BPL systems used in these tests employ orthogonal frequency division multiplex (OFDM) within the 2-30 MHz band, although operation may be tested on some units above 30 MHz, but within the frequency limits specified in this application. In order to assess the electromagnetic compatibility of these systems to licensed services, measurements are planned to determine (1) 47CFR Part 15 compliance, (2) potential interference to licensed services in the HF and lower VHF bands and (3) susceptibility of the BPL systems to interference from licensed services. Susceptibility testing will require transmission in segments of the HF and low VHF bands used by BPL systems at power levels intended to simulate what may be expected from transmitters in the licensed services. Every effort will be made not to interfere with transmissions of Exhibit 3 AT&T Corp. licensed services. Most test transmissions will be of short duration and will be made at power levels lower than those authorized to licensees. In no case will test power levels exceed those permitted to licensees. In order to facilitate mounting arrangements compatible with the power grid infrastructure, the 802.11 access point, bridge, repeater equipment and BPL devices may be repackaged into a single weatherproof box. Since this will void the FCC compliance certification for devices removed from their original enclosures, this application for experimental operation includes frequencies in the 2.4 GHz and 5.150- 5.825 GHz bands used by 802.11a and 802.11b compliant equipment. However, the repackaged units will be tested to assure they are within Part 15 limits.

Item 10b/7b Experiments in both cities will assess the viability and maturity of BPL and IEEE 802.11 technologies and the feasibility of using fiber to the neighborhood with these technologies to deliver local access services using the facilities of a power company. In addition to assessment of the technical performance and delivery capabilities of services these systems are intended to provide, experiments will also evaluate the electromagnetic compatibility of the BPL technologies with the licensed services.

Item 10c/7c Potential contribution aspects of the experiment include achieving a greater understanding of the operation and economics of BPL systems in a deployed configuration, performance assessment from a customer perspective of the test architecture using fiber to the neighborhood and information regarding the interaction of BPL with the licensed radio services. As issues are identified in each of these areas during the course of the experiment, improvements in technology and operation will be stimulated and tested.

(for more information see: *The ARRL Letter*, Vol. 23, No. 25, June 18, 2004 or; <http://www.arrl.org/news/stories/2004/06/18/8/>)

BPL

Subject: [NCCC] Is BPL coming to a city near you?

ATT has been issued an experimental license for BPL tests in CA, NJ and FL. http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-248119A1.doc The California city mentioned is Menlo Park. Anyone know any hams in Menlo Park? Someone might want to keep an eye on this. The guys in Raleigh, NC have done a good job of "nipping at the heels" of the BPL operators and the FCC down there. If trials start up out here I think the same type of thing will be required.

....and:

The experimental license is WD2XIZ issued to AT&T. It appears to be for the RF wireless subsystem which operates at 2.4 GHz and 5.3 GHz. The license authorizes two signal types, a 20MHz single channel QAM and 16.6 MHz multicarrier QAM (possibly OFDM). Exact test location isn't given, just the city - Menlo Park. The license is good from 4/15/04 to 4/1/06.

It is ironic that microwave frequencies are used to deliver the broadband signal to the power poles where the BPL transponder is located, and then the signal goes by powerline for only the last mile. It's a shame the signal isn't carried by microwave the entire way, which would eliminate the interference potential in the 1.705 to 80 MHz band and cost less to build and operate.

~ Steve, K6OIK

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Technical Tip

July is IOTA Month

de Vic Black, AB6SO

If June is Field Day Month then July might be considered IOTA Month. Operations occur monthly, but peak during July as travelers activate islands for the IOTA Contest during the fourth weekend of July. The Radio Society of Great Britain "Islands on the Air" (IOTA) program is similar to DXCC. Unlike DXCC, IOTA rewards either confirmed listener reports or contacts with more than 1100 islands or island groups as opposed to about 330 DXCC entities, or "countries". Short Wave Listener Geoff Watts created IOTA during the 1960's to reward Short Wave Listeners (SWL's) for "island hunting". RSGB assumed the program in 1985 as it grew in popularity and required more resources. It is now an obsession with many operators. Confirming contacts with 100 islands earns a basic award. High achievers work 200, 300, 400, 500, 600 or 700 islands. Seven continental and three regional awards (Arctic, British Isles and West Indies) are available with plaques for working higher numbers of islands. A total of 18 awards are possible. Earn an award for only hearing stations and receiving QSL cards if you aren't yet licensed for HF operation.

Islands are identified by a two-digit continent prefix and a numerical identifier. For example, Channel Islands National Park near Santa Barbara has North America designator NA144. Prefixes are AF (Africa), AN (Antarctica), AS (Asia), EU (Europe), NA (North America), OC (Oceania) and SA (South America). Most computer logging programs automatically track IOTA contacts. Most activity centers on SSB frequencies 14.260 and 21.260 MHz. CW operations center on 7.040, 14.040 and 21.040. Some island activators emphasize 6 meters and the WARC bands (12, 17 and 30 meters) or use other modes, such as PSK31, RTTY, satellite or ATV/SSTV.

Many countries qualify for both DXCC and IOTA. Examples are the Japanese Islands, Hawaiian Islands, New Zealand and Caribbean island nations. Not all islands are rare or exotic. Some urban areas, such as Long Island, NY, qualify. Many Japanese operators ride ferries to local islands to operate IOTA LXpeditions, or local expeditions. Islands must be in open ocean so Alcatraz Island doesn't count, but the Farallons, 35 miles away, are valid. Search your QSL collection. You may already qualify for an award. QSL's are checked by checkpoint operators in the US. See the informative web site of Don Chamberlain W9DC at <http://www.innova.net/~w9dc>.

Obtain an RSGB IOTA Directory to apply for an award. The detailed program description lists qualifying islands. See RSGB IOTA information at <http://www.rsgb.org/operate/iota/iota.html>. The Island Radio Expedition Foundation, IREF, distributes the IOTA Directory in North America. Profits from directory sales fund expeditions to new and rare IOTA islands. See their web page at www.ISLANDRADIO.org.

A helpful site is <http://www.islandchaser.com>. Bookmark <http://www.islandchaser.com/iotw/calendar2/index>. On the calendars pick a day or week for a list of announced operations, including QSL routes. Worldradio Magazine and many DX clusters are good information sources. DX Summit has instantaneous "spots" listing IOTA stations as they pop up on the air at <http://oh2aq.kolumbus.com/dxs/>. AC6V website, <http://www.ac6c.com> has an island chaser section. Click IOTA or Islands on the main menu. See "Announced DX Operations" at <http://www.ng3k.com/Misc/adxoe.html> for current expeditions. Many count for IOTA. Daily DX News <http://www.dailydx.com/> provides daily or weekly online subscriptions covering DX and IOTA operations. In the SF Bay Area, monitor the DX Club repeater 147.360 for DX Alerts.

Have fun working IOTA qualifiers during the contest and the days prior to and following the event. If you're planning a vacation, you could be on the receiving end of a manageable, but stimulating pile up by traveling to an IOTA entity yourself.

The Berlin Wall was 26.5 miles long.

PAARA Radio NET

every Monday evening

8:30 P.M., local time

on the

145.230 -600 MHz repeater

PL tone off

control operators:

1st Mon KG6ILA, Pinkney Foster

2nd Mon N6NU, Andreas Junge

3rd Mon AD6FX, Jon Zweig

4th Mon AA6PA, Bill Rausch

5th Mon tba

Join us for pre-meeting eyeball

QSO

July 9th

gab & gobble

Food will be served at 6:00 sharp, so guests will be on time for the PAARA meeting. Those arriving late will be responsible for their own food order.

6 pm— at Su Hong Restaurant

1039 El Camino Real

Menlo Park

—across from Kepler's Book Store—

Subject: [NCCC]

Is BPL coming to a city near you?

ATT has been issued an experimental license for BPL tests in CA, NJ and FL. http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-248119A1.doc. The California city mentioned is Menlo Park. Anyone know any hams in Menlo Park? Someone might want to keep an eye on this. The guys in Raleigh, NC, have done a good job of "nipping at the heels" of the BPL operators and the FCC down there. If trials start up out here I think the same type of thing will be required.

~Andy KR6DD

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ROCKBOUND on the ROCK

Steve Stuntz, K6FS. PAARA Historian emeritus

Corregidor Island sits at the entrance to Manila Bay. It's shaped like a tadpole, head looking west to the South China Sea; tail trailing eastward into the Bay. West and south of Manila about 26 miles - 2 ½ to 3 hours by harbor-boat - in 1936 it was the main coastal defense for the port, supporting four other heavily fortified islands strung across the Bay's entrance. Overall it measures about seven miles tailtip to nose, two and a half miles at greatest breadth. It is situated across the North Channel, 3 km south of Mariveles village on Bataan Peninsula, and 20 km north of the Bay's southern shore.

About 1,500 combat and support troops were quartered in three garrisons - Kindley Field to the east, Middleside halfway up, and *Topside*, more than 700 feet above the shoreline. Units of coast artillery, signal corps, and quartermaster occupied the 1000-foot long three-storey barracks near the crest, along with Post Exchange, library, tailor, shoe and barbershops, and snack bar. The building itself was reinforced concrete, open-sided, weather-protected by movable panels of native shell mounted in wood frames. It overlooked a grassy parade ground-ball field area. Just downhill, towards the field, a small wooden outbuilding stood. This was the QTH of KAIUS, licensee and custodian **Charles C. "Chuck" Larcom, W7AOQ**, sergeant in charge of maintaining transmitters, receivers and antennas for WTA, linking Philippine Department headquarters with other island bases, Hawaii, San Francisco, Washington, China, Panama and military transports at sea. All traffic, by the way, was exchanged by hand sent CW, copied on the mill.

Wheatstone perforator and Boehme keyer didn't come in until mid-1939. RTTY was far in future.

At that time the Philippine Bureau of Posts licensed amateur radio. Since the Philippines were a U. S. possession, call signs carried a U.S. prefix - *KA*. Separate operator and station licenses, with their own certificates, were issued, ran concurrently, and were renewable annually, on proof of activity - notarized extracts from the year's log. Examinations were waived for qualified military applicants. The rig at KAIUS: receiver, Hammarlund Comet Pro, band-changed by plugin coils (no r.f. stage preceding first detector - lots of image with 455-kHz i.f.). Transmitter (CW only): 47 crystal oscillator, 46 buffer-doubler, 210 pre-driver, 211 driver, 204A amplifier, about 300 watts d.c. input. All neatly laid out on open breadboard, link-coupled stage-to-stage, totally unshielded. Antenna: end-fed zepp 40 feet up, strung between two telephone poles. Bands: 40 and 20 meters. Principle activity: international ragchewing, chasing pre-DXCC DX, and handling personal messages for military and civilian families with continental-U.S. connections. (Surface mail took over a month door-to-door, airmail uncertain and much too expensive.)

QSL's and SWL's trickled in, receiving due response via self-designed card. No QSL Bureau help available - everything went via minimum-cost direct mail. A few Europeans, lots of British military in South Africa, many from U. S. and around the Pacific - especially Australia-New Zealand. Wire-less Institute of Australia required aspiring hams first to register as licensed (and fee-paying) SWL's, then after a probationary year of collecting QSL's from duly-licensed hams overheard, as proof of serious intent, sit for exams. Since KAIUS seemed audible Down Under just about any time, it became a popular, obliging source, to the limits imposed by a soldier's pay. Both 20 and 40 meter CW during odd off-duty hours - usually after thrice-weekly evening traffic sked with **Emile Guidici, W6CXK**, in Angels Camp, California.

Significant blip in the routine came one day - QSL wrapped in a letter postmarked China: **Man Fai Young, XU7Y**, instructor in physics, University of Yunnan, Yunnan-Fu (Kunming), congratulating KAIUS on pioneering new territory - *ten-meter* CW. Nobody - including KAIUS - had ventured so far up-spectrum in those years. Great puzzlement on the Rock. A QSO on *twenty meters* showed in the logbook at the time reported. Aha! - unintentional harmonic radiation. XU7Y was apologetically so informed.

A few tentative 20- and 40-meter QSO's were held in the following weeks, but the main contact was by surface mail. Acquaintance burgeoned. It developed that this was Man Fai's first venture away from home; that he had just graduated from University of Hawaii in June 1936. And designed, block-cut and printed his own QSL cards.

According to his letters, southwest China's high, rugged mountains were unfriendly and miserable; cold rain prevailed in the winter. Living condi-

tions at the university were marginal - new, unfinished buildings of reinforced concrete, small rooms, unfamiliar food and accommodations. Incoming students were pitifully unprepared for higher education; library and study arrangements rudimentary, counseling assignments burdensome. Relationships with colleagues and administrative staff were frustrating; he was made to feel foreign despite his ethnic origins. In a word, academic life was not up to expectation. Black-and-white snapshots of his environment reflected his complaints - life *looked* grim indeed. It was an easy guess that he was one homesick islander. The letters from XU7Y seemed a therapeutic safety valve.

Early in the correspondence he described his travels from port of entry to the heart of the rugged, primitive territory. His journey took many days from the seacoast, by rail and by riverboat. At each boundary - and there were many - his baggage containing books and equipment for his new profession, plus a collection of electronic components for a ham station, was opened, inspected, and in some cases generously pilfered.

By spring 1937 Japan had invaded the north, was moving south. Man Fai's letters worried about his future at the university. [General Chenault's "Flying Tigers" were based in Yunnan Fu; the Burma Road had begun to take shape, USS *Panay* had been bombed.] After a long silence, and no more XU7Y QSO's, the last letter arrived. It was posted literally as he boarded ship in Hong Kong for Honolulu. No further word.

An era had ended.

Years later - many years - K6FS connected casually with KH6IJ, Katashi Nose, Honolulu. With longstanding ham friends in common - **Bob Chapman, W1QV**, New London, and **Carl Smith, W0BWJ**, Denver - there was plenty to reminisce about. Nose had taken summer courses at Stanford in 1964; he'd been guest of honor at Visalia. And so forth. On the spur of recollection XU7Y's story came up. Nose knew him - they'd graduated from U. of H. in the same class. Man Fai had survived WWII, made a career in electronics with FAA, was retired and enjoying life in a large family. He had *NOT* resumed interest in amateur radio; Nose hadn't been in touch, but his XYL could make discrete inquiry; as a professional health caregiver she was widely known and knowing. More notes were exchanged. The final word was simply, Man Fai is still around, but otherwise occupied. That was all.

So much for the days of our youth.

In January 1974 Steve Stuntz returned to ham radio as an Extra Class licensee after a 20 year hiatus. He was awarded K6FS by FCC on payment of USD25 (20.00 was later refunded by order of U.S. Supreme Court) for having held licenses 25 years earlier, per 97.51(A)(5). He served three years at several bases in the Philippines, including Corregidor, as Signal Corps transmitter technician and overseas CW operator; he was licensed for a year as KAIUS. During WWII he participated in research on selecting and training radio ops for the armed forces. He holds degrees in applied experimental psychology, and is retired from a career in ergonomics (human engineering). His main ham radio interests now are chasing QRP DX on SSB, working digital modes, and experimenting with speech processing. He is a 30-year member of PAARA and a Life Member of ARRL. At present he is compiling a history of the international phonetic alphabet.

~Steve Stuntz, K6FS

MATH EXERCISE FOR GENERAL CLASS LICENSE OR ABOVE.

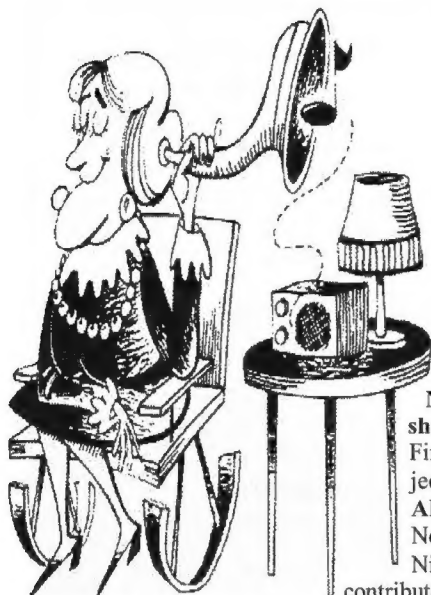
- 1) Use a calculator. (you may not be able to do this one in your head)
- 2) Key in the first three digits of your telephone number. (not the area code)
- 3) Multiply by 80.
- 4) Add 1.
- 5) Multiply by 250.
- 6) Add the last 4 digits of your telephone number.
- 7) Add the last 4 digits of your telephone number again.
- 8) Subtract 250.
- 9) Divide by 2.

Do you recognize the answer ?

For a complete understanding of why this formula works the way it does, kindly contact PAARA member Andy Korsak, KR6DD, who happens to hold a Ph.D. in mathematics from U.C. Berkeley.

~Terry Finn. AF6TF.

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GOOD OLD STUFF from PAARAGRAPHS History

Andy Korsak, KR6DD

kr6dd@arrl.net

(Does "Good Old Stuff" look interesting? If you would like more, contact Andy and offer to Scan, Copy, Edit, etc. It is too much for one person. ~ed.)*

30 years ago July 1974 VOL. XVIII No.7

NEXT MEETING Friday, July 12, 1974. Larry Reed W6CTH presents a cineramic slide show of his latest trip to Russia, Poland, East and West Germany, Norway, Sweden, Denmark, Finland and England. Some are stereoscopic 35mm slides taken with two cameras, to be projected with two projectors. **Bring your YL or XYL, or both – or a spare!**

AREN'T MONDAYS THE ABSOLUTE WORST DAY OF THE WEEK????

Now you can Cheer Up and look Forward to them!!! Yes, the PAARA net meets every Monday Nite at 8:15 PM on 145.24 MHz [note: that was AM (ancient modulation)]. We need you to contribute to the 100% ragchewed quality of the conversation. Extract yourself from the Monday nite

Moodies and BE THERE.

[Board meeting June 12:] ...Gotham never sent our 20m beam ... we ordered it 7 weeks ago!!! [the club had to sue a dipole for Field Day] ... It was suggested that we have signs to identify ourselves to the public ... we estimate about 60 [paid membership] ... New members...Steve Stuntz, K6FS of Menlo Park

FINANCIAL REPORT AS OF JUNE 15, 1974 Funds available: \$1,413.19 [I believe PAARA is much richer now!]

A letter submitted by a PAARA member who moved to Livermore Oct '73 ... main reason for **not going to 2 meter FM** is that there is **so much good AM gear left in the world that is not being used and it is dirt cheap to buy and much easier to repair.** 73, Lee Zalaznik, WB6BJB. [Well, things have changed, haven't they!]

PAARA'S WINNING 1974 FIELD DAY *** A PRELIMINARY REPORT!!!**

A really funny story by me (VE3FZK at the time) ... how I brought my camper with my wife and three kids, so much QRM we couldn't sleep ... my failed OSCAR contact attempt: 1) ...surplus key ... no solder 2) B+ on linear amp left on all the time, yielding two very flat 4-65 tubes 3) resident mathematician, equipped with HP-35, made a 5 to 10 minute miscalculation on the orbit pass ... **"Should we change Murphy's name to Andy????"** [editor Rick Ferranti WA6NCX, now W6NIR] ... hand-cranked generator yielded about 20 contacts on 2m FM

20 years ago July 1984 vol. 26

Cover picture: Andy VE3FZK, PAARA's New V.P.

REGULAR MEETING Friday, July 6, 1984

ANTENNA DESIGN & STACKING by Tom Schiller, N6BT

New editor: George Nixon GI3OEN ... added lots of interesting news about Ireland in an unusually thick PAARAGRAPHS issue, which also added a new feature:

STATION OF THE MONTH: Andy Korsak, VE3FZK ... President of PAARA in 1969 and 1970 ... Vice-President in 1972 and 1975-1978 [this was a story garnered by the editor, with a few pictures, in the style of what Terry Finn AF6TF is currently contributing to PAARAGRAPHS]

10 years ago July 1994 Volume 40

Cover picture: Gerry Tucker, field day chairman WA6LNV

Temporary Editor: Lily N6PGM, added numerous pictures of contributors and various PAARA activities – including Vick AB6SO using a garbage can lid as a shield for an HT, and my 8 element 2m fox hunting Yagi at the top of my long Dodge van at the time.

No mention was made of a program for the July meeting. Lily announced the new editor, Joel KA7TXV. "...send your comments. Editorials or just plain diatribe... **the system of choice will be on packet via N0ARY or over the internet...**

A PAARA roster was an insert – 148 members, many still are members but some have new call signs

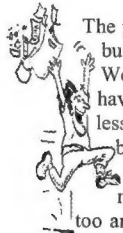
A Word of Caution [a funny story Vic AB6SO got from the internet]

...I am an amateur radio operator. On the day of the accident, I was working alone on the top section of my new 80-foot tower ... brought up about 300 pounds of tools and hardware... decided to lower the items in a small barrel by using a pulley which, fortunately, [oh yeah?] was attached to the gin pole...loaded the tools and hardware into the barrel...proceeded back to the ground and untied the rope, holding the rope to ensure a slow descent [I think you all probably read/heard all this before – you know where "this is going", right? – up goes the guy, down comes the barrel, etc...]

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TYPICALLY SHARP & SOME GOOD ADVICE

by George Carlin



The paradox of our time in history is that we have taller buildings but shorter tempers, wider freeways, but narrower viewpoints. We spend more, but have less, we buy more, but enjoy less. We have bigger houses and smaller families, more conveniences, but less time. We have more degrees but less sense, more knowledge, but less judgment, more experts, yet more problems, more medicine, but less wellness. We drink too much, smoke too much, spend too recklessly, laugh too little, drive too fast, get too angry, stay up too late, get up too tired, read too little, watch TV too much, and pray too seldom.

We have multiplied our possessions, but reduced our values. We talk too much, love too seldom, and hate too often. We've learned how to make a living, but not a life. We've added years to life not life to years. We've been all the way to the moon and back, but have trouble crossing the street to meet a new neighbor. We conquered outer space but not inner space. We've done larger things, but not better things. We've cleaned up the air, but polluted the soul. We've conquered the atom, but not our prejudice. We write more, but learn less. We plan more, but accomplish less. We've learned to rush, but not to wait. We build more computers to hold more information, to produce more copies than ever, but we communicate less and less.

These are the times of fast foods and slow digestion, big men and small character, steep profits and shallow relationships. These are the days of two incomes but more divorce, fancier houses, but broken homes. These are days of quick trips, disposable diapers, throwaway morality, one night stands, overweight bodies, and pills that do everything from cheer, to quiet, to kill. It is a time when there is much in the showroom window and nothing in the stockroom. A time when technology can bring this letter to you, and a time when you can choose either to share this insight, or to just hit delete.

Remember, spend some time with your loved ones, because they are not going to be around forever. Remember, say a kind word to someone who looks up to you in awe, because that little person soon will grow up and leave your side. Remember, to give a warm hug to the one next to you, because that is the only treasure you can give with your heart and it doesn't cost a cent.

Remember, to say, "I love you" to your partner and your loved ones, but most of all, mean it. A kiss and an embrace will mend hurt when it comes from deep inside of you. Remember to hold hands and cherish the moment for someday that person will not be there again. Give time to love, give time to speak, and give time to share the precious thoughts in your mind.

HOW TO STAY YOUNG

1. Throw out nonessential numbers. This includes age, weight and height. Let the doctor worry about them. That is why you pay him/her.
2. Keep only cheerful friends. The grouches pull you down.
3. Keep learning. Learn more about the computer, crafts, gardening, whatever. Never let the brain idle. "An idle mind is the devil's workshop." And the devil's name is Alzheimer's.
4. Enjoy the simple things.
5. Laugh often, long and loud. Laugh until you gasp for breath.
6. The tears happen. Endure, grieve, and move on. The only person who is with us our entire life, is ourselves. Be ALIVE while you are alive.
7. Surround yourself with what you love, whether it's family, pets, keepsakes, music, plants, and hobbies, whatever. Your home is your refuge.
8. Cherish your health: If it is good, preserve it. If it is unstable, improve it. If it is beyond what you can improve, get help.
9. Don't take guilt trips. Take a trip to the mall, to the next county, to a foreign country, but NOT to where the guilt is.
10. Tell the people you love that you love them, at every opportunity.

AND ALWAYS REMEMBER:

Life is not measured by the number of breaths we take, but by the moments that take our breath away.

-George Carlin

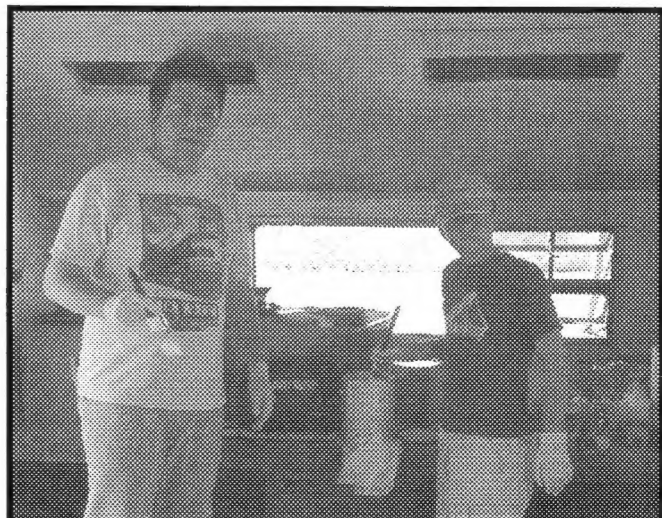
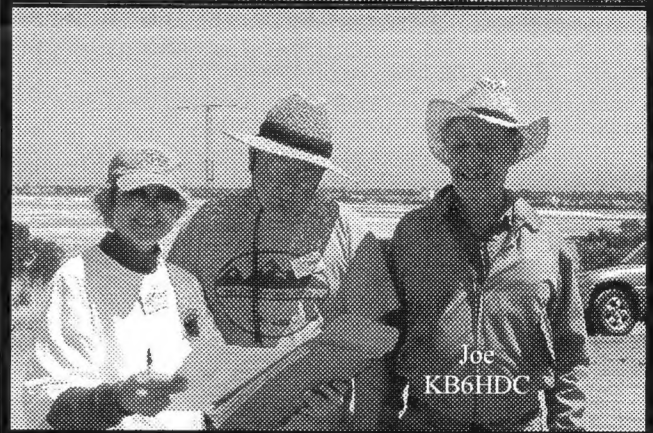
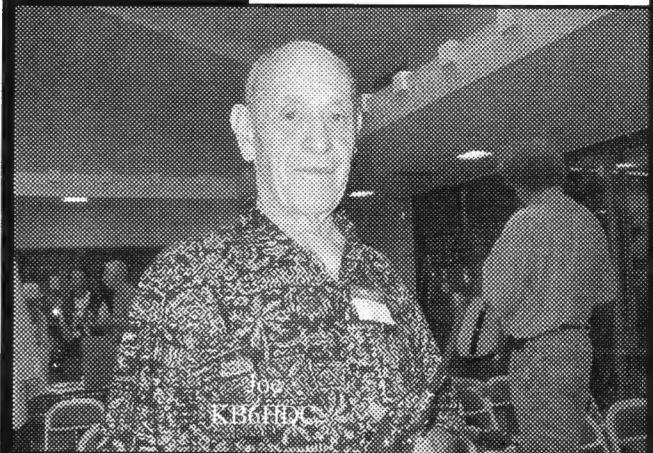
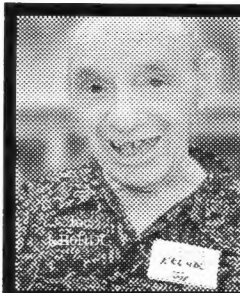
(George Carlin wrote & presented the above piece for the 2004 Class at the University of Iowa.)

PAARA HONORS

Here are pictures of

Joe Gomes, KB6HDC

We were unable to include pictures in last months issue, honoring Joe



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BOARD OF DIRECTORS MEETING.

The regular PAARA Board of Directors meeting was held on Wednesday, June 9, 2004, at the Red Cross offices in Palo Alto. Members in attendance were, President **Andreas Junge, N6NU**; Vice President, **Jim Rice, K6AK**; Secretary, **Terry Finn, AF6TF**; Treasurer, **Ron Chester, W6AZ**; and PAARA members **Steve Brune, KG6OUB** and **Stan Towle, WA6ZGI**.

The meeting was called to order by the President at 1935 hours. As there was no quorum for legal voting the meeting became a general discussion and planning session for the field day activities. PAARA field day participant t-shirts will be ordered and available for those PAARA members who actually assist with the erection, operation or tear down of the field day stations, towers & antennas. N6NU will be responsible for presenting the appropriate t-shirts. The luxury model outdoor toilets, (for men & women) have been arranged for by AF6TF. The special insurance policy mandated by the City of Menlo Park has been put in place by AF6TF. Both N6NV, the overall commander in chief of field day and N6NU will be arranging for actual radio operators to man (or women) the 24 hour CW and phone stations, while the GOTA (get on the air) station will be supervised by an experienced operator appointed from time to time by N6NV.

Some discussion occurred regarding the effectiveness and or usefulness of the current old field day trailer. Suggestions by some indicated we should seriously consider renting large RV's or possibly using several large, military style tents. Other issues included storage of PAARA owned equipment and certain security concerns regarding equipment and radio operators. A committee will be established after field day to research the various ideas.

AF6TF is handling the DMV registration of the new utility trailer and the acquisition of a new permanent utility trailer license plate. This trailer was donated to PAARA from Advanced Micro Devices through the exceptional negotiation skills of **Bob Korte, KD6KYT**. Some of the Board members would like to see a commercial grade portable radio antenna tower manufactured onto the trailer, much like those made professionally by Force 12 antennas in Fresno. Discussion on this matter was tabled for a later meeting.

The meeting was adjourned at 2100 hours and most of the Board then traveled to MacDonald's in Menlo Park for the after meeting discussion of minor field day arrangement.

~Terry Finn. AF6TF

RADIO DONATION

RECEIVED FROM NC6U

As a direct result of the donation request published on page 69 of the June edition of PAARAgaphs, we are pleased to report that PAARA member Ron Carmichael, NC6U, stepped up to the plate and graciously donated a complete two meter radio. Thank you Ron for supporting the Mother House of the Dominican Sisters of Mission San Jose with the Kenwood TM-221A radio. Ron delivered the working radio, which was in new condition, to PAARA member Stan Towle, WA6ZGI, who is coordinating the design and installation of equipment in the radio shack at the Mission located in Fremont. The Sisters (two of whom are PAARA members) really appreciate the help with their project.

~Terry Finn. AF6TF

Bike for Breath

The American Lung Association is conducting a Bike for Breath event Saturday, 10 July 2004. The Start/Finish and Control Center is off of East Third Avenue in San Mateo.

The area is from East San Mateo; Canada Road (92 to Woodside); Roche Medical at 3431 Hillview Avenue off Foothill in Palo Alto; Island Park in Belmont and back to Start/Finish at Applied Biosystems in San Mateo.

There are four Rest Stops with one being a "Lunch Stop". The American Lung Association is well known for feeding their volunteers VERY WELL! They generally have a decent breakfast from 0600 until 0900ish, then they are barbecuing for lunch. (It is usually "health" oriented but very tasty). The only "item" to keep in mind is it is American Lung Association...they get complaints from volunteers smoking at rest stops.

There are four routes so we will be using amateur for two or three of the routes. This event does NOT go over the hill. It is a fun, very well planned, friendly event...great for first timers. We need radios at each Rest Stop. One Rest Stop will be using GMRS (462.675MHz) and some of the Gold Wings use CB radios. Feel free to > break out any old gear you have stored in the garage and see if it still works. SAG vehicles might make use of a amateur operator, also. Just come by and visit and try the food.

To participate and get a free T-Shirt, contact me as soon as possible to reserve your shirt and ensure enough food for all.

Jon Mosby, KF6RFQ SCARES

650-326-2230 • 650-326-0958

kf6rfq@arrl.net

**Want and For Sale ads in
 PAARAgaphs
 are FREE to members**

(Submit by e-mail or letter before the 15th of the month)

PAARA BADGES

to order one, contact coordinator:

Dave Rogers, K5DKR

dkr55@bigfoot.com

PAARAgaphs July 2004
 Celebrating 67 years as an *active* ham radio club—*Since 1937*

PAARA *"The Friendliest Club Around"*

July 9th *Meeting and Raffle*

Palo Alto Amateur Radio Association, Inc.

Date and Time: Friday, July 9th at 7:30 p.m.

Location: Menlo Park Recreation Center, 700 Alma St., Menlo Park, CA.

PAARA Website: www.paara.org

Welcome Members and Visitors

SPECTACULAR, UNBELIEVEABLE, & HEART-POUNDING EXCITEMENT!!
"MUST ATTEND EVENT OF THE YEAR" say Amateur Radio Operators Worldwide...
Mark your calendar and don't sit down in that Barcalounger because "that's not all folks!"

FIRST PRIZE:

Come try your hand at winning the

Yaesu FT-2800M / 2m / 65W / FM Transceiver

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SECOND PRIZE: Icom IC-T2H Sport / 2m / 6W / Handheld Transceiver

THIRD PRIZE: TWO Uniden / 22 Channel / FRS / GMRS Radios

NiMH Batteries with Drop In Charger

Don't forget about the **TWO / FOURTH Place Raffle Prizes plus a Bonus Prize of a**
1-year subscription to WORLD RADIO.

Enjoy our fabulous speakers, free refreshments, chatting with your friends, and the chance to take home an unbelievable prize. See you at Round Table after the meeting! Kyle, Ian and I are having a lot of fun.

THANKS AGAIN FOR MAKING THE MEETINGS VERY EXCITING!

The PAARA Raffle is **FULL of SURPRISES** and **YOUR LUCKY DAY** may be July 9th

Contact Kyle, KG6MSK and Ian, K6IAN, "Two of PAARA's youngest members" for tickets at the meeting.

Special Thanks to Howard and HRO for their continued SUPPORT!

~Jim, K6AK

Congratulations:

PAARA Raffle Prize Winners / June 4th 2004

1st Prize: J.C. Guillon W6JVG/ Elecraft KX1 with Paddle

2nd Prize: Gerry Tucker N6NV/ Garmin eTrex GPS Receiver

3rd Prize: Gabe KG6TMR/ Wireless Router and Wireless PC Card

4th Prize: David Ungar KG6RWP/ Talking Caller ID

4th Prize: Ron Smith WH6BPT/ Gordon West Code Tapes

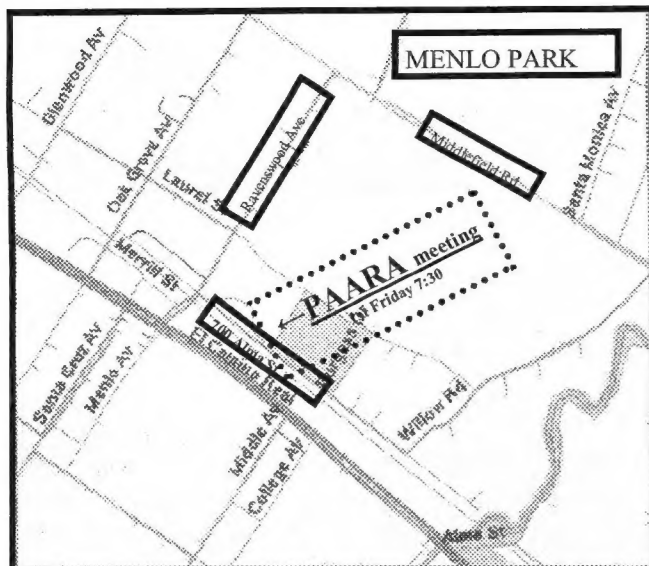
Bonus Prize: Peter Sheerin K6WEB/ 1 Year Subscription to WORLD RADIO

PAARA Members and Visitors: THANK YOU FOR YOUR SUPPORT of the upcoming *PAARA 2004 Dream to Reality Raffle II* as well as the exciting monthly raffles! Since Feb. 03, **39** Radios, including an ICOM 706 MK IIG have gone to Fellow Hams, **THANKS TO YOU!**

PAARA is having a remarkable year in 2004, and if you aren't a member, please join PAARA and experience fun events with the friendliest club around.

~K6AK Jim

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Howard at HRO says: "HAM accessories and gift certificates are available at HRO"

"Congratulations PAARA on a successful year."

W6AZ



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(short personal ads remain free for members in good standing).

All ad rates listed are per issue only.

1. Not for profit ads by association members for ham-related items and wants. No cost for business card size ads (additional space at \$2.50 per business card size).
2. For Profit organizations and/or individuals: \$5-business card size, \$25-half page, \$50 full page or back cover.

These fees may be reduced or waived in exchange for a valuable consideration that is given to the Association or its general membership. Such consideration must be in addition to any existing arrangements with the association.

The PAARAgaphs editors reserve the right to reject any ad deemed to be not in the best interest of the Association. All fees payable in advance by the year with "scanner-ready" copy or text-only ads. Give payment and copy to Bob Korte

PAARA • Palo Alto Amateur Radio Association • P.O. Box 911, Menlo Park, California 94026-0911

- Club meetings are on the first Friday of each month, 7:30pm at the Menlo Park Recreation Center, 700 Alma Street, Menlo Park, CA.
- Radio NET every Monday evening, at 8:30pm, on the 145.230-600 MHz repeater, PL tone off.

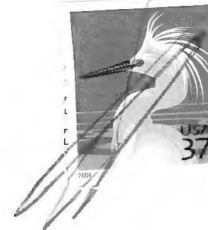
Membership in PAARA is \$12.00 per calendar year which includes a subscription to PAARAgaphs, \$6 for additional family members (no newsletter).

Make payment to the Palo Alto Amateur Radio Association, P.O. Box 911, Menlo Park, CA 94026-0911

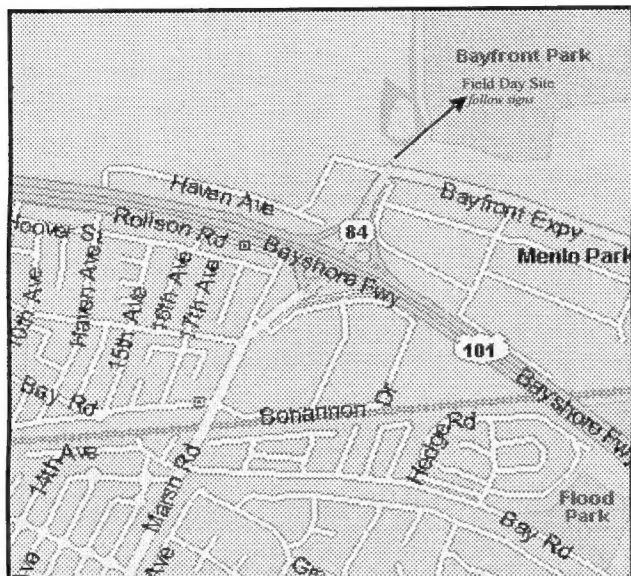
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PAAR*A*graphs July 2004

Palo Alto Amateur Radio Association, Inc.
PAARagraphs Newsletter
P.O. Box 911
Menlo Park, California 94026



FIRST CLASS MAIL



PAARA FIELD DAY
June 26-27



Korsak, Andy KR6DD
504 Lakemead Way
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12 STORE BUYING POWER



WORLDWIDE DISTRIBUTOR



KENWOOD

TS-2000 160 Watts, 120W, 100W, 50W, 25W, 10W, 5W, 2.5W, 1.25W, 0.625W, 0.3125W, 0.15625W, 0.078125W, 0.0390625W, 0.01953125W, 0.009765625W, 0.0048828125W, 0.00244140625W, 0.001220703125W, 0.0006103515625W, 0.00030517578125W, 0.000152587890625W, 0.0000762939453125W, 0.00003814697265625W, 0.000019073486328125W, 0.0000095367431640625W, 0.00000476837158203125W, 0.000002384185791015625W, 0.0000011920928955078125W, 0.00000059604644775390625W, 0.000000298023223876953125W, 0.0000001490116119384765625W, 0.00000007450580596923828125W, 0.000000037252902984619140625W, 0.0000000186264514923095703125W, 0.00000000931322574615478515625W, 0.000000004656612873077392578125W, 0.0000000023283064365386962890625W, 0.00000000116415321826934814453125W, 0.000000000582076609134674072265625W, 0.0000000002910383045673370361328125W, 0.00000000014551915228366851806640625W, 0.000000000072759576141834259033203125W, 0.0000000000363797880709171245156015625W, 0.000000000018189894035458562257803125W, 0.0000000000090949470177292811289015625W, 0.00000000000454747350886455606445078125W, 0.000000000002273736754432278032225390625W, 0.0000000000011368683772161390161126953125W, 0.00000000000056843418860806950805634765625W, 0.000000000000284217094304034754028173828125W, 0.0000000000001421085471520173770140869140625W, 0.00000000000007105427357600868850704345703125W, 0.000000000000035527136788004344253521728515625W, 0.0000000000000177635683940021721267608642578125W, 0.0000000000000088817841970010860633804321390625W, 0.00000000000000444089209850054303169021606453125W, 0.000000000000002220446049250271515845108032265625W, 0.00000000000000111022302462513575772540401612890625W, 0.000000000000000555111512312568888622702008064453125W, 0.0000000000000002775557561562844443113510040322265625W, 0.000000000000000138777878078142222155675502016112890625W, 0.0000000000000000693889390390711110778377510080564453125W, 0.00000000000000003469446951953555553891887550402822265625W, 0.000000000000000017347234759767777769459437752014112890625W, 0.00000000000000000867361737988388888347297188755070564453125W, 0.0000000000000000043368086899419444417364859437752014112890625W, 0.00000000000000000216840434497097222086824297188755070564453125W, 0.0000000000000000010842021724854861104336214859437752014112890625W, 0.000000000000000000542101086242743055216810729297188755070564453125W, 0.00000000000000000027105054312137152760840536460864453125W, 0.000000000000000000135525271560685763804202682304322265625W, 0.00000000000000000006776263578034288190210134115106112890625W, 0.00000000000000000003388131789017144095050670557552564453125W, 0.000000000000000000016940658945085720475253352787762822265625W, 0.00000000000000000000847032947250428602376167639388112890625W, 0.000000000000000000004235164736252143011880838196940564453125W, 0.0000000000000000000021175823681260715059404190984702822265625W, 0.000000000000000000001058791184063035752970209549235112890625W, 0.0000000000000000000005293955920315178764851047746175564453125W, 0.0000000000000000000002646977960157893882425523873087762822265625W, 0.000000000000000000000132348898007894694121276193654388112890625W, 0.0000000000000000000000661744490039473470606380968271940564453125W, 0.0000000000000000000000330872245019736735303190484135972822265625W, 0.0000000000000000000000165436122509868367651595242067986112890625W, 0.00000000000000000000000827180612549341838257976210339940564453125W, 0.00000000000000000000000413590306274670919128988105169972822265625W, 0.00000000000000000000000206795153137335459564494052584986112890625W, 0.000000000000000000000001033975765686677297822470262924940564453125W, 0.0000000000000000000000005169878828433386489112351314624702822265625W, 0.000000000000000000000000258493941421669324455617565731235112890625W, 0.0000000000000000000000001292469707108334622277837828656165564453125W, 0.000000000000000000000000064623485355416731113891891432827628

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